

# Ketepatan Parameter Fraksi Penebalan Diafragma, Nilai CRP, Jumlah Balans Kumulatif Dan Nilai Rapid Shallow Breathing Index Dalam Memprediksi Kemudahan Penyapihan Ventilasi Mekanik Pada Pasien Kritis Di ICU = The Accuracy of Diaphragm Thickening Fraction, CRP, Cumulative fluid balance and Rapid Shallow Breathing Index in predicting the ease of weaning mechanical ventilation in critical patients in the ICU

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## Abstrak

Latar Belakang : Penyapihan dari ventilasi mekanik adalah hal yang penting dalam merawat pasien kritis dan mendapatkan ventilasi mekanik. Tujuan dari penelitian ini adalah ingin mengetahui ketepatan parameter fraksi penebalan diafragma, nilai CRP, jumlah balans kumulatif dan nilai Rapid Shallow Breathing Index dalam memprediksi kemudahan penyapihan ventilasi mekanik pada pasien kritis di ICU. Metode: Penelitian ini merupakan penelitian kohort prospektif dengan subjek penelitian adalah pasien dewasa yang dirawat menggunakan ventilasi mekanik. Dilakukan pemeriksaan fraksi penebalan diafragma, nilai CRP, jumlah balans kumulatif dan nilai Rapid Shallow Breathing Index pada saat 24 jam pertama di ICU dan pada saat ventilasi mekanik mode PS<8 atau T-Piece sampai maksimal hari ketujuh perawatan di ICU atau pada hari ketujuh bila belum berhasil disapih. Hasil: Pada penelitian ini didapatkan ketidakbermaknaan secara statistik antara fraksi penebalan diafragma terhadap kemudahan penyapihan ventilasi mekanik ( $p=0,071$ ) pada uji bivariat. Pada analisis bivariat, pengaruh CRP terhadap kemudahan penyapihan ventilasi mekanik didapatkan hasil yang tidak bermakna secara statistik ( $p=0,724$ ). Balans kumulatif dan nilai RSBI juga didapatkan hasil yang tidak bermakna secara statistik untuk memprediksi kemudahan penyapihan ventilasi mekanik ( $p=0,510$  dan  $p=0,116$ ). Kesimpulan: Fraksi Penebalan Diafragma, Nilai CRP, Jumlah Balans Kumulatif dan Nilai Rapid Shallow Breathing Index secara statistik tidak tepat untuk memprediksi kemudahan penyapihan ventilasi mekanik pada pasien kritis di ICU.

.....Background: Weaning from mechanical ventilation is essential in caring for critically ill patients and obtaining mechanical ventilation. The purpose of this study was to determine the accuracy of diaphragm thickening fraction, CRP, cumulative fluid balance and Rapid Shallow Breathing Index in predicting the ease of weaning mechanical ventilation in critical patients in the ICU. Method: This study is a prospective cohort study in which the subjects were adult patients who were treated using mechanical ventilation. The diaphragm thickening fraction, CRP value, cumulative fluid balance and Rapid Shallow Breathing Index value were examined during the first 24 hours in the ICU and during mechanical ventilation in PS <8 or T-Piece mode until a maximum of the seventh day of the treatment in the ICU or on the seventh day if have not been successfully weaned. Result: in this study, it was found that there was no statistical significance between the diaphragm thickening fraction and the ease of weaning from mechanical ventilation ( $p=0.071$ ) in both bivariate. In bivariate analysis, the effect of CRP on the ease of weaning on mechanical ventilation was not statistically significant ( $p=0.724$ ). The cumulative balance and RSBI values were also not statistically significant to predict the ease of mechanical ventilation weaning ( $p=0.510$  and  $p=0.116$ ) Conclusion: the diaphragm thickening fraction, CRP value, cumulative fluid balance and Rapid Shallow

Breathing Index statistically not accurate to predict the ease of weaning mechanical ventilation in critical patients in the ICU.